April 17, 1945. M. GLASER 2,374,092

MULTIPLE VESSEL COMBINATION

Filed Aug. 22, 1942

Fig. 1.

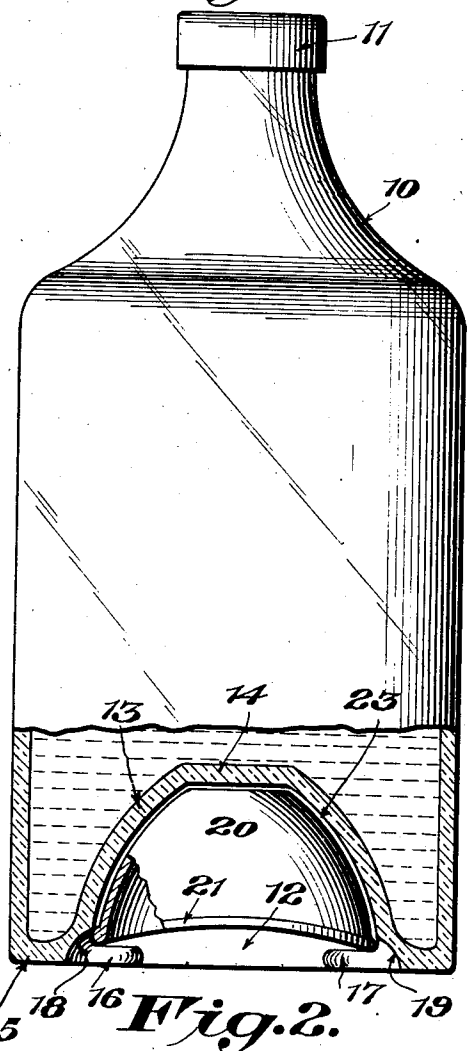


Fig. 6.

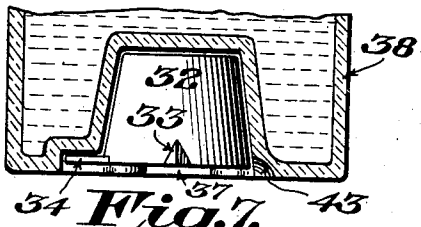


Fig. 7.

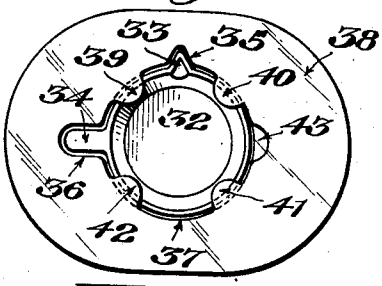


Fig. 4.

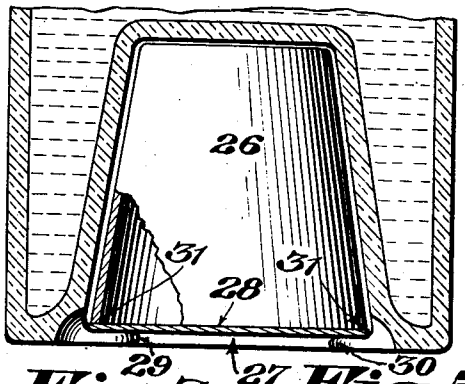


Fig. 2.

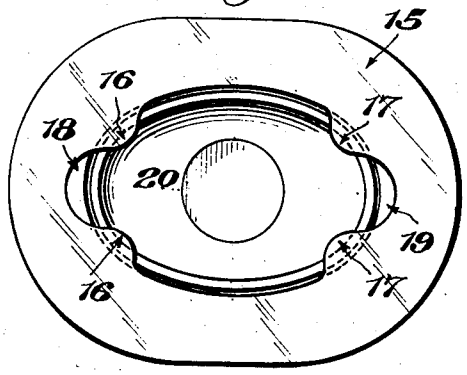


Fig. 3.

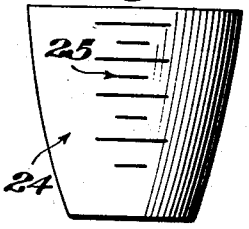
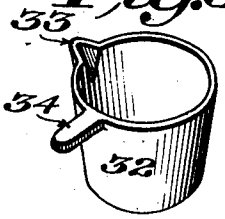


Fig. 5.



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MULTIPLE VESSEL COMBINATION

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8 Claims. (Cl. 215—10)

This invention relates to a composite article of manufacture, and more particularly to a bottle or container for storing fluent or liquid substances or other goods, said bottle or container having a recessed part in which another smaller vessel, or more specifically a cup, for drinking, medical or other purposes can be kept, while said vessel or cup is not in use.

An object of this invention is to provide a device for treating eyes comprising a bottle for the treating liquid with a recessed bottom part in which an eyecup is held while said eyecup is not in use.

A further object of the invention is to provide an improved bottle for medical or refreshment purposes, having a recessed bottom in which a medical or drinking cup can be stored.

A still further object of this invention is to provide an improved bottle for various purposes with a storage chamber in its recessed bottom in which a cup can be kept hygienically clean.

Another object of this invention is to provide an improved bottle containing a cup which does not increase the outer size of the bottle, thus the bottle can easily be carried in luggage or in a pocket.

Other objects and the nature and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing, wherein:

Fig. 1 illustrates a front view of the new bottle combination, with the bottom part broken away showing the inserted eyecup;

Fig. 2 shows a bottom plan view of the bottle and eyecup in Fig. 1;

Fig. 3 is a front view of a cup for medical purposes to be inserted in the bottom part of a bottle according to the invention;

Fig. 4 shows a cross section through the bottom part of a modification of the improved bottle with an inserted cup for drinking purposes and a sanitary cover for said cup;

Fig. 5 is a perspective view of a modification of a cup for medical purposes, constructed for dispensing small drops;

Figs. 6 and 7 illustrate the cup of Fig. 5 inserted in a bottle in cross section and bottom plan view, respectively.

Referring to the drawing, the bottle 10 in Fig. 1 has an oval shape. It can be made of any suitable material such as glass, metal, rubber, natural or artificial resin or other plastic material. Preferably, the bottle 10 is made of glass. The bottle may have at its top the usual screw cap 11 as closure means. The bottom end of the bottle 10 is recessed in such a way that a chamber 12 is obtained which is open at the lower end of the bottle. Said chamber 12 is formed by the generally frusto-conically shaped wall portions 13 which are slightly arched and a disk-like wall portion 14 forming the top connection of the frusto-conical wall portions 13. A flat and generally annular portion 15 forms the lower end of said bottle connecting the vertical wall portions of the bottle with the generally frusto-conically shaped wall portions 13. The bottle stands upright on said generally flat annular wall portion 15. Two protruding pairs of rim segments 16 and 17 are provided opposite to each other at the inner edge of the generally annular wall portion 15. Each of these pairs of rim segments is spaced by a small curved depression as at 18 and 19 in the surface of the wall portion 13 of the recess 12 of the bottle 10, which depressions are located opposite to each other. An eyecup 20 made of any suitable slightly elastic or resilient material such as rubber, metal, natural or artificial resin of phenol condensation products, celluloid, or the like plastic is inserted into the recess 12 of the bottle 10. Said eyecup 20 which has approximately the same shape as said recess 12 has a reinforced projected edge 21 at its open side. The edge 21 is bent in such a way that the eyecup fits snugly into the eye to be treated. The open side of the eyecup faces downwards, when the eyecup 20 is inserted into said recess 12. A small gap or space 23 is preferably left between the wall of the eyecup 20 and the wall portions 13, 14 of the recess 12.

The eyecup 20 can easily be removed from the recess 12 of the bottle 10 by introducing two fingers into the depressions 18 and 19, respectively, and pressing with said fingers slightly against the edge 21 of the eyecup 20. Since the eyecup 20 is made of resilient or elastic material, it will be slightly distorted or bent by exertion of pressure against its walls, whereby the edge 21 can easily be slipped over the rim segments 16, 17 of the recess 12. Thus the eyecup 20 can be taken out entirely from the recess 12 and can be used for the treatment of the eyes in the ordinary manner. After the eyecup has been used, it can again be inserted into the recess 12 by simply pushing it into said recess, until the projecting edge 21 of the eyecup 20 snaps behind the protruding rim segments 16, 17 of the recess 12.

Instead of an eyecup any other cup or the like vessel can be kept in such bottle. The cup 24 in Fig. 3 is constructed as a measuring cup for laboratory, medical purposes or the like. At the

one side of said cup **24** graduations **25** are provided for determining the volume content inside of said cup. If the cup **24** is made of transparent material the graduations **25** may be formed on the outer wall surface. The medical cup **24** of Fig. 3 can be inserted into a correspondingly formed recess of a medicine bottle, as described in connection with the bottle combination of Fig. 1.

In Fig. 4, a drinking cup **26** is inserted into the recess **27** of the bottom of a bottle containing a medicine or beverage. Whereas the side walls of the cups in Figs. 1 and 3 are slightly bent, the side walls of cup **26** are substantially straight. The open side of the cup **26** is covered by a disk **28** of the same or other resilient or elastic material as or than the drinking cup **26** itself. For example, the drinking cup **26** could be made of a plastic, such as Bakelite, whereas the cover disk **28** may consist of paper or cardboard with a moisture-proof coating. On the surface of the covering disk **28** a printed text containing directions of use or advertising matter may be provided. The covering disk **28** fits tightly behind the protruding rim segments **29**, **30** of the bottle and rests on the outer edge **31** of the drinking cup **26**. Before the drinking cup **26** will be taken out from the recess **27**, the covering disk **28** has to be removed first in the same way as the drinking cup **26** itself. Of course, such covering disks for the cups may also be provided in the forms shown in Figs. 1 and 3. Instead of using a permanent cover as shown in Fig. 4, a cover of very thin material, such as Cellophane, may be used, or said thin cover may be provided in addition to the permanent cover.

In the modification of Fig. 5, a cup **32** for medical purposes is illustrated which can be inserted into a corresponding recess of a medical bottle, as shown in Figs. 6 and 7. The cup **32** distinguishes over the cup **24** in Fig. 3 by the provision of a lip **33** at its rim for pouring very fine drops. In order to enable the user of the cup to hold it easily, a handle **34** is provided at the rim of the cup **32**. This handle **34** is offset by an angle of preferably 90° with respect to the lip **33**. The lip **33** and the handle **34** fit in corresponding depressions **35** and **36** in the rim at the lower opening of the recess **37** of the bottle **38**. Four protruding rim portions **39**, **40**, **41**, and **42** are provided at the inner edge of the opening of the recess **37** for holding the inserted cup **32** in place. In order to remove the cup **32** one's finger can be introduced into a depression or cavity **43** which is located opposite to the depression **36** for the handle **34**. By exerting pressure upon the edge of the walls of the inserted cup **32** by the finger introduced in said cavity **43** the cup which is made of elastic material will slightly be distorted, whereupon the edge of the walls can be slipped over the protruding rim portions **40** and **41** and the cup **32** be taken out entirely from the bottle recess **37**. The cup **32** may be inserted into the recess by carrying out these operations in reverse.

Any other forms or shapes for the bottle and/or cups may be used. The invention is not limited to the use of round or oval shapes for the bottle and/or cups.

The structure of the new composite article of manufacture insures a sanitary and hygienical storage of cups in bottles for various purposes. A particular advantage is that by use of the medical cup provided with graduations any difficulty resulting from the different sizes of spoons which are used in many cases for measuring the contents of medicines is completely avoided; thus doctor's prescriptions can be strictly followed. This has not been possible with the hitherto employed methods of using spoons of various sizes. The sanitary and hygienical housing or storing of the cups enables the user to carry the bottles and the cup with him without danger of losing or crushing the cup. By the use of the new article of manufacture the wholesaler and retailer, such as druggist or pharmacist, has to store only one combined article, whereas previously two pieces had to be kept.

The invention may also be useful in other fields, such as chemistry, where it is necessary to store liquids or other substances in bottles and dispense them into smaller vessels or cups. Thus, the cup in Fig. 3 may advantageously be employed by a photographer for measuring photographic substances kept in a bottle belonging to said measuring cup. The invention is neither limited to bottles of a specific form or material nor to bottles for a specific use or content.

It will be obvious to those skilled in the art that various changes may be made in this device without departing from the spirit of the invention and therefore the invention is not limited to what is shown in the drawing and described in the specification but only as indicated in the appended claims.

I claim:

1. A multiple vessel combination, comprising a primary vessel and a secondary vessel, said primary vessel formed of relatively rigid walls, said secondary vessel having a relatively elastic or resilient wall portion, said primary vessel being formed with a receiving cavity for receiving said secondary vessel, said relatively rigid walls being provided with protruding portions at the opening of said receiving cavity, said protruding portions being adapted to hold said secondary vessel in place, whereby said secondary vessel will normally be held within said cavity and may be readily removed therefrom by distorting said elastic or resilient portion, so as to disengage same from said primary vessel.

2. A bottle for fluent substances, combined with a smaller cup, said bottle having walls formed with a recess of approximately the size of said smaller cup, spaced projections on the wall of the bottle at the opening of said recess, said smaller cup having walls being made of elastic or resilient material and having such a shape that it can be introduced into said recess and held therein by the spring-like action of its walls snapping behind said spaced projections.

3. A bottle according to claim 2, wherein a reinforcing, outwardly projecting rim is provided on the walls of the smaller cup at its open side.

4. A bottle for fluent substances, combined with a smaller vessel, said bottle having walls formed with a recess of approximately the size of said smaller vessel, protruding rim segments on the walls of the bottle at the opening of said recess, depressions in the surface of the recess walls for introducing one's fingers, said depressions spacing said segments and facing each other, said smaller vessel having walls being made of elastic or resilient material and having such a shape that it can be introduced into said recess and held therein by the spring-like action of its walls snapping behind said protruding rim segments.

5. A device for treating eyes, comprising in

combination, a medicine bottle having walls formed with a recess of the form of an eyecup in its bottom portion, an eyecup of approximately the size of said recess, protruding portions on the wall of the bottle at the opening of said recess, said eyecup having walls being made of elastic or resilient material and having such a shape that it can be introduced into said recess and held therein by the spring-like action of its walls snapping behind said protruding portions.

6. An article of manufacture, comprising in combination, a bottle for fluent substances, said bottle having walls formed with a recess of approximately the size of a smaller vessel in its bottom, protruding rim segments on the walls of the bottle at the opening of said recess, a smaller vessel having walls being made of elastic or resilient material, graduations on the walls of said smaller vessel for measuring the content of said vessel, said latter vessel having such a shape that it can be introduced into said recess and held therein by the spring-like action of its walls snapping behind said protruding rim segments.

7. A composite article of manufacture comprising in combination, a bottle for fluent substances, and a cup, said bottle having walls formed with a recess of approximately the size of said cup, protruding portions on the wall of the bottle at the opening of said recess, said cup having walls being made of elastic or resilient material and having such a shape that it can be introduced into said recess and held therein by the spring-like action of its walls snapping behind said protruding portions, a lip located at the edge of the open side of said cup, suitable for pouring very fine drops out of the cup.

8. A composite article of manufacture according to claim 7, characterized by the provision of a gripping means or handle on the edge of the open side of the wall of the cup.

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